

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (cancelled)

2. (currently amended) The portable terminal device according to claim [[1]] 3, wherein the determined distance is based on a zoom ratio of the camera module.

3. (currently amended) ~~The portable terminal device according to claim 1,~~ A portable terminal device comprising:

a camera module;

a light module as an illumination function in shooting an image of an object by the camera module;

an image control processing section for sending zoom control information of the camera module and carrying out image processing; and

an illuminance variable section for varying illuminance intensity output from the light module in accordance with a determined distance from the camera module to the object,

wherein the illuminance variable section further varies the illuminance intensity output for photography of the light

module in accordance with information on the image processing of an immediately preceding taken image.

4. (cancelled)

5. (currently amended) The method for varying light illuminance according to claim [[4]] 6, wherein the determined distance is based on a zoom ratio of the portable terminal camera device.

6. (currently amended) ~~The method for varying light illuminance according to claim 4~~ A method for varying light illuminance of a portable terminal camera device, the method comprising:

an illuminance variable step of varying illuminance intensity output from a light module of a portable terminal camera device in accordance with a determined distance from the portable terminal camera device to an object to be captured,

wherein the illuminance variable step further varies the illuminance intensity output for photography of the light module in accordance with information on image processing results of an immediately preceding taken image.

7-9. (cancelled)

10. (currently amended) ~~The computer-readable medium of claim 9,~~ A computer-readable medium storing a program of instructions executable by a computer to control the computer to function for varying light illuminance intensity output from a portable terminal device, the program making the computer carry out processing which varies illuminance intensity output from a camera light module in accordance with a determined distance from the portable terminal device to an object to be captured,

wherein the program causes the computer to i) determine the distance between the portable terminal device and the object; and ii) send the determined distance as distance information to an illuminance variable section in order that the illuminance intensity output from the camera light module is varied in accordance with the thus determined distance,

wherein the determined distance is based on a zoom ratio of the portable terminal device, and

wherein the program causes the computer to further vary the illuminance intensity output during photo exposure in accordance with information on image processing, said information including shades and outlines of an image to be photographed.

11. (currently amended) ~~The portable terminal device according to claim 2,~~ A portable terminal device comprising:
a camera module;

a light module as an illumination function in shooting
an image of an object by the camera module;

an image control processing section for sending zoom
control information of the camera module and carrying out image
processing; and

an illuminance variable section for varying illuminance
intensity output from the light module in accordance with a
determined distance from the camera module to the object,

wherein the determined distance is based on a zoom
ratio of the camera module, and

wherein the illuminance variable section further varies
the illuminance intensity output during photo exposure in
accordance with information on the image processing, said
information including shades and outlines of an image to be
photographed.

12. (currently amended) ~~The method for varying light
illuminance according to claim 4~~ A method for varying light
illuminance of a portable terminal camera device, the method
comprising:

an illuminance variable step of varying illuminance
intensity output from a light module of a portable terminal
camera device in accordance with a determined distance from the
portable terminal camera device to an object to be captured,

wherein the illuminance variable step further varies the illuminance intensity output during photo exposure in accordance with information on the image processing, said information including shades and outlines of an image to be photographed.

13. (currently amended) ~~The computer-readable medium of claim 9,~~ A computer-readable medium storing a program of instructions executable by a computer to control the computer to function for varying light illuminance intensity output from a portable terminal device, the program making the computer carry out processing which varies illuminance intensity output from a camera light module in accordance with a determined distance from the portable terminal device to an object to be captured,

wherein the program causes the computer to i) determine the distance between the portable terminal device and the object; and ii) send the determined distance as distance information to an illuminance variable section in order that the illuminance intensity output from the camera light module is varied in accordance with the thus determined distance,

wherein the determined distance is based on a zoom ratio of the portable terminal device, and

wherein the program causes the computer to further vary the illuminance intensity output during photo exposure in

accordance with information on image processing, said information including edge detection of an image to be photographed.

14. (currently amended) ~~The portable terminal device according to claim 2,~~ A portable terminal device comprising:

a camera module;

a light module as an illumination function in shooting an image of an object by the camera module;

an image control processing section for sending zoom control information of the camera module and carrying out image processing; and

an illuminance variable section for varying illuminance intensity output from the light module in accordance with a determined distance from the camera module to the object,

wherein the determined distance is based on a zoom ratio of the camera module, and

wherein the illuminance variable section further varies the illuminance intensity output during photo exposure in accordance with information on the image processing, said information including edge detection of an image to be photographed.

15. (currently amended) ~~The method for varying light illuminance according to claim 4~~ A method for varying light

illuminance of a portable terminal camera device, the method comprising:

an illuminance variable step of varying illuminance intensity output from a light module of a portable terminal camera device in accordance with a determined distance from the portable terminal camera device to an object to be captured,

wherein the illuminance variable step further varies the illuminance intensity output during photo exposure in accordance with information on the image processing, said information including edge detection of an image to be photographed.

16. (currently amended) ~~The computer-readable medium of claim 9,~~ A computer-readable medium storing a program of instructions executable by a computer to control the computer to function for varying light illuminance intensity output from a portable terminal device, the program making the computer carry out processing which varies illuminance intensity output from a camera light module in accordance with a determined distance from the portable terminal device to an object to be captured,

wherein the program causes the computer to i) determine the distance between the portable terminal device and the object; and ii) send the determined distance as distance information to an illuminance variable section in order that the illuminance intensity output from the camera light module is varied in accordance with the thus determined distance,

wherein the determined distance is based on a zoom ratio of the portable terminal device, and

wherein the program causes the computer to further vary the illuminance intensity output during photo exposure in accordance with information on image processing, said information including cluster comparison of an image to be photographed.

17. (currently amended) ~~The portable terminal device according to claim 2,~~ A portable terminal device comprising:

a camera module;

a light module as an illumination function in shooting an image of an object by the camera module;

an image control processing section for sending zoom control information of the camera module and carrying out image processing; and

an illuminance variable section for varying illuminance intensity output from the light module in accordance with a determined distance from the camera module to the object,

wherein the determined distance is based on a zoom ratio of the camera module, and

wherein the illuminance variable section further varies the illuminance intensity output during photo exposure in accordance with information on the image processing, said information including cluster comparison of an image to be photographed.

18. (currently amended) ~~The method for varying light illuminance according to claim 4~~ A method for varying light illuminance of a portable terminal camera device, the method comprising:

an illuminance variable step of varying illuminance intensity output from a light module of a portable terminal camera device in accordance with a determined distance from the portable terminal camera device to an object to be captured,

wherein the illuminance variable step further varies the illuminance intensity output during photo exposure in accordance with information on the image processing, said information including cluster comparison of an image to be photographed.